REMARKS

This Amendment is filed in response to the Final Office Action mailed on July 22, 2009 along with a Request for Continued Examination and the associated fees. All objections and rejections are respectfully traversed.

Claims 1-58 are currently pending.

Claim Rejections - 35 USC § 103

At paragraphs 3-4 of the Final Office Action, claims 1-4,6-36, and 38-58 were rejected under 35 U.S.C. §103 as being unpatentable over Blumenau et al., U.S. Patent No. 6,421,711 (hereinafter "Blumenau"), in view of Benhase et al., U.S. Patent No. 6,421,711 (hereinafter "Benhase").

> 1. A system configured to simplify management of a clustered storage system having a plurality of fail over modes, the system comprising:
>   a user interface system that allows a user to define a plurality of failover modes in a clustered storage system, wherein each fail over mode automatically configures one or more ports on a selected storage system or a partner storage system in response to a failover condition, ***wherein the partner storage system is configured to receive requests directed to the partner storage system and the selected storage system;*** and
>   a command set, implemented by the user interface system, configured to set a cluster mode, the cluster mode including at least one of the plurality of failover modes in which a storage system is to operate, wherein ***the command set further provides information specific to the failover operations of the one or more ports to the user on the user interface system.***

By way of background, Blumenau discloses a storage controller with at least one physical port and a plurality of virtual ports. A virtual switch routes storage requests from the physical port to the virtual ports. The storage controller includes a graphical user interface (GUI) that includes a grid of logical volumes to storage adapter ports. Additionally, at each intersection on the grid, the target/LUNs assigned to provide the ad-

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ministrator with a view of the mappings of LUNs to logical storage volumes and storage adapters. Furthermore, an administrator can use "mount" and "unmount" commands for mounting and unmounting storage volumes to storage ports. "A graphical user interfaces provides a mechanism for a system administrator to set and view the mapping of LUNs to logical storage volumes and the storage adapter ports used for accessing the physical storage volumes that make up the logical storage volumes." *See* col. 29 line 67 - col. 29 line 4.

Benhase discloses a block diagram, Fig. 1, of a computing environment. *See* col. 3, lines 35-52. "A host 100 is coupled to a storage unit, such as, a primary storage control unit 102, where <u>the host 100 may [send] input/output (I/O) requests to the primary storage</u> control unit 102." *See* col. 3, lines 35-52 (emphasis added). "<u>The primary storage control unit 102 may send</u> the I/O requests to one or more other storage units, such as, secondary storage control units 104, 106." *See* col. 3, lines 35-52 (emphasis added).

Applicant respectfully urges that the combination of Blumenau and Benhase, taken alone or in any combination does not teach or suggest Applicant's claimed novel *"the partner storage system is configured to receive requests <u>directed to the partner storage system and the selected storage system</u>"* and/or *"the command set further provides information specific to the failover operations of the one or more ports to the user on the .user interface system."*

In further detail, in Applicant's claimed invention, a user interface is used to simplify management of a clustered storage system. The user interface defines a plurality of failover modes for operating the cluster in cluster mode. A command set implemented by the user interface system *provides information specific to the failover operations of the one or more ports <u>to the user on the user interface system</u>.* The command set also includes a command for the user to set the cluster mode. This cluster mode is at least one of the plurality of failover modes in which a storage system is to operate. Each failover mode automatically configures one or more ports on a selected storage system or a partner storage system in response to a fail over condition. This allows *the partner storage system to receive requests <u>directed</u> to the partner storage system <u>and</u> the selected stor-*

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age system. That is, the port on the partner storage system assumes the identity of the selected (failed) storage system in order <u>to receive requests directed to the selected</u> <u>(failed) storage system.</u> In turn, the partner storage system is configured <u>to receive</u> requests <u>directed to</u> the partner storage system and the selected (failed) storage system.

Indeed, the Examiner seems to agree that "Blumenau does not explicitly teach ... wherein the partner storage system is configured to receive requests directed to the partner storage system and the selected storage system." *See* page 3 of the Final Office Action. However, Benhase also fails to rectify the deficiencies of Blumenau.

Rather than teaching a partner storage system that is configured "*to receive re-quests directed to the partner storage system and the selected storage system,*" Benhase, teaches a primary storage control unit 102, where the "host 100 may [send] input/output (I/O) requests <u>to the primary storage</u> control unit 102." *See* col. 3, lines 35-52 (emphasis added). "<u>The primary storage control unit 102 may send</u> the I/O requests to one or more other storage units, such as, secondary storage control units 104, 106. *See* col. 3, lines 35-52 (emphasis added). Thus, all of the requests in Benhase are actually directed to the secondary storage units <u>not the primary storage</u> unit. Furthermore, if the primary storage server failed in Benhase, the secondary storage servers would no longer receive the requests <u>from the primary storage server.</u> Thus, the requests directed to the failed storage system are not received by the partner storage system. Benhase only teaches receiving a request at the primary storage unit <u>and then sending requests from the primary storage</u> <u>unit to the secondary storage unit.</u> Benhase makes no mention of receiving the requests <u>for both</u> the primary storage unit and the secondary storage unit <u>on the secondary storage</u> <u>unit</u>.

Furthermore, neither Blumenau nor Benhase teach a command set interface which "*provides information specific to the failover operations of the one or more ports to the user on the user interface system.*" First, Blumenau only provides a mechanism to set and view the mapping of the LUNS. At no time does Blumenau teach providing specific information about the ports in relation to the failover operations of the one or more ports.

Thus, Blumenau merely allows the user to set up the ports on the GUI but provides <u>no</u> information specific to the fail over operations of the one or more ports to the user.

Benhase also fails to teach a command set that provides "information specific to the failover operations of the one or more ports to the user on a user interface." In fact, Benhase fails to teach the use of <u>any</u> user interface at all. Thus, Benhase is not even capable of providing a user with information specific to the failover operations of the one or more ports to the user on the user interface system because Benhase has no user interface to provide said information on.

Accordingly, Applicant respectfully urges that the combination of Blumenau and Benhase, taken alone or in any combination, is legally insufficient to make obvious the presently claimed invention under 35 U.S.C. § 103 because of the absence of the Applicant's claimed novel *"the partner storage system is configured to receive requests directed to the partner storage system and the selected storage system"* or *"the command set further provides information specific to the failover operations of the one or more ports to the user on the user interface system."*

At paragraph 5 of the Final Office Action, claims 5, 23, and 37 were rejected under 35 U.S.C. §103 as being unpatentable over Blumenau, in view of Clark, "IP SANs: A Guide to iSCSI, iFCP, and FCIP Protocols for Storage Area Networks" published Nov. 26, 2001, hereinafter Clark.

Applicant respectfully notes that claims 5, 23, and 37 are dependent claims that depend from independent claims believed to be in condition for allowance. Accordingly, claims 5, 23, and 37 are believed to be in condition for allowance.

Conclusion

All independent claims are believed to be in condition for allowance.

All dependent claims are dependent from independent claims which are believed to be in condition for allowance. Accordingly, all dependent claims are believed to be in condition for allowance.

Favorable action is respectfully solicited.

Please charge any additional fee occasioned by this paper to our Deposit Account No. 03-1237.

Respectfully submitted,

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